

4. (Twice Amended) A semiconductor device manufactured using a lead frame, with the lead frame having a two-dimensional barcode pattern for information management provided on said lead frame to which semiconductor chips are bonded, with the pattern representing [as] frame ID information, and said two-dimensional barcode pattern is comprised of a plurality of blocks arranged in a predetermined two-dimensional region.

7. (Twice Amended) A semiconductor device having at least one semiconductor chip sealed by resin, and having a two-dimensional barcode pattern for information management provided at an outer surface of said resin [as] and representing product ID information, and said two-dimensional barcode pattern is comprised of a plurality of blocks arranged in a predetermined two-dimensional region.

11. (Twice Amended) An information management system for semiconductor devices, having at least one semiconductor chip that implements management of information related to said semiconductor devices separately for individual semiconductor devices comprising:

[chip ID information provided on said semiconductor chip as a two-dimensional barcode pattern for information management for each chip;]

a read device that reads [said] chip ID information, said chip ID information is provided on said semiconductor chip as a two-dimensional barcode pattern for information management for each chip, said two-dimensional barcode pattern is comprised of a plurality of blocks arranged in a predetermined two-dimensional region; and

a management unit that registers said chip ID information thus read and manages individual semiconductor manufacturing processes based upon said chip ID information thus registered.

14. (Twice Amended) An information management system for semiconductor device manufactured using a lead frame, which system implements management of information related to said semiconductor devices separately for individual semiconductor devices comprising:

[frame ID information provided, as a two-dimensional barcode pattern for information management, on a lead frame to which semiconductor chips are bonded;]

a read device that reads [said] frame ID information, said frame ID information is provided on said lead frame as a two-dimensional barcode pattern for information management, said two-dimensional barcode pattern is comprised of a plurality of blocks arranged in a predetermined two-dimensional region; and

a management unit that registers said frame ID information thus read and manages individual semiconductor manufacturing processes based upon said frame ID information thus registered.

16. (Twice Amended) An information management system for semiconductor devices having semiconductor chips sealed by resin, which system implements management of information related to said semiconductor devices separately for individual semiconductor devices comprising: